Lung and Bronchus Cancer in Virginia

Risk Factors[1]

- Cigarette smoking is the strongest risk factor for lung and bronchus cancer.
- Other risk factors include environmental/occupational exposures to second-hand smoke, radon, and asbestos (especially in smokers).
- Genetic factors may increase susceptibility to the disease.
- The most important step an individual can take to prevent lung and bronchus cancer is to not smoke.

Warning Signs and Symptoms[1]

- Chronic cough
- Coughing up blood
- Chest pain
- Recurrent respiratory infections

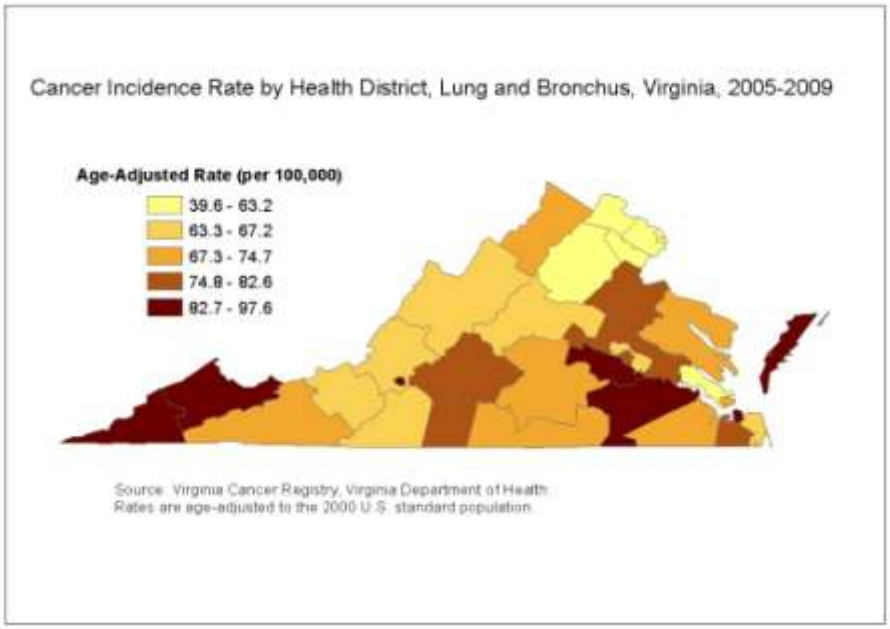
Early Detection[1]

- There are no screening tests that have been shown to decrease mortality from the disease.
- A large study, the National Lung Screening Trial, is currently underway investigating whether two screening methods, chest x-ray or spiral CT, can reduce mortality among high-risk individuals.

Lung and Bronchus Cancer Facts

- Lung and bronchus cancer is the second most commonly diagnosed cancer (excluding non-melanoma skin cancer) and the leading cause of cancer death among both men and women in the United States. One in thirteen men and one in sixteen women will be diagnosed with lung and bronchus cancer during their lifetime. Incidence and mortality rates among men have fallen over the last two decades. Increasing incidence and mortality rates among women have leveled off in recent years.[1]
- Over the 2005-2009 time period, the incidence rate of lung and bronchus cancer in Virginia was 67.4 cases per 100,000.[2] (U.S. rate=62.6 cases per 100,000)[3]

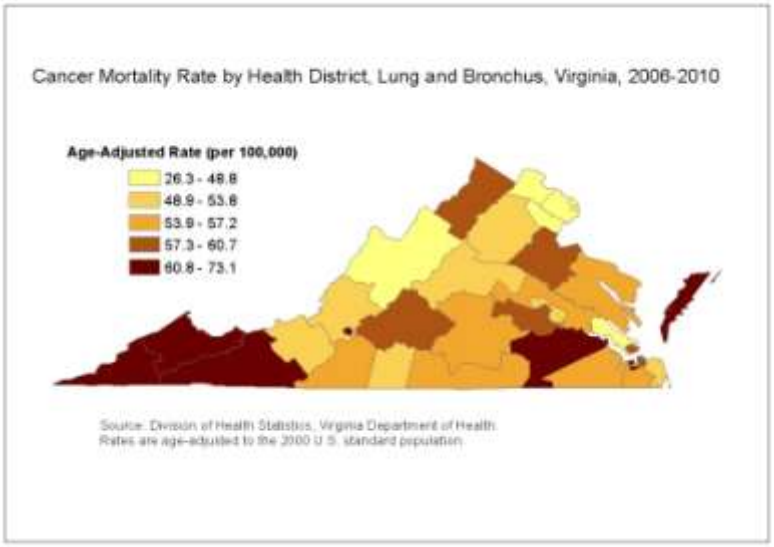
Figure 1



Lung and Bronchus Cancer in Virginia

- Figure 1 shows incidence rates of lung and bronchus cancer by health district in Virginia. Eastern Shore, Lenowisco, and Crater had the highest incidence rates of lung and bronchus cancer among the 35 health districts.[2]
- Over the 2006-2010 time period, the mortality rate from lung and bronchus cancer in Virginia was 50.9 deaths per 100,000.[4] (U.S. rate=49.5 deaths per 100,000)[5]
- Figure 2 shows lung and bronchus cancer mortality rates by health district in Virginia. Lenowisco, Eastern Shore, and Crater had the highest mortality rates from lung and bronchus cancer among the 35 health districts.[4]

Figure 2



- Incidence rates were higher in men compared to women in Virginia. African-American men were diagnosed with lung and bronchus cancer at an especially high rate. Incidence rate (per 100,000 population) = 103.2 for African-American men, 83.7 for white men, 56.5 for white women, and 50.0 for African-American women.[2]
- Mortality rates were higher in men compared to women in Virginia. African-American men died from lung and bronchus cancer at an especially high rate. Mortality rate (per 100,000 population) = 82.8 for African-American men, 65.3 for white men, 40.8 for white women, and 38.0 for African-American women.[4]
- Lung and bronchus cancer has a five-year relative survival rate of 50 percent if diagnosed in its earliest (local) stage.[1] In Virginia, only 19 percent of lung and bronchus cancer diagnosed was local stage.[2]
- Figure 3 shows the percentage of lung and bronchus cancer cases diagnosed local stage by health district in Virginia. Crater, Piedmont, and Western Tidewater had the lowest percentage of lung and bronchus cancer cases diagnosed local stage among the 35 health districts.[2]
- The percentage of lung and bronchus cancer cases diagnosed local stage was low for both whites (19%) and African-Americans (15%) in Virginia.[2]
- According to 2010 health behavior survey data, 19% of adults in Virginia were current smokers (U.S. average=17%).[6]

Figure 3

- Figure 4 shows current smoking rates by health district in Virginia. Southside, Lenowisco, and Roanoke had the highest smoking percentages among the 35 health districts.[7]
- Prevalence of current smoking was higher among those who were less educated, lower income, and uninsured. Current smoking prevalence was similar in African-Americans and whites.[7]

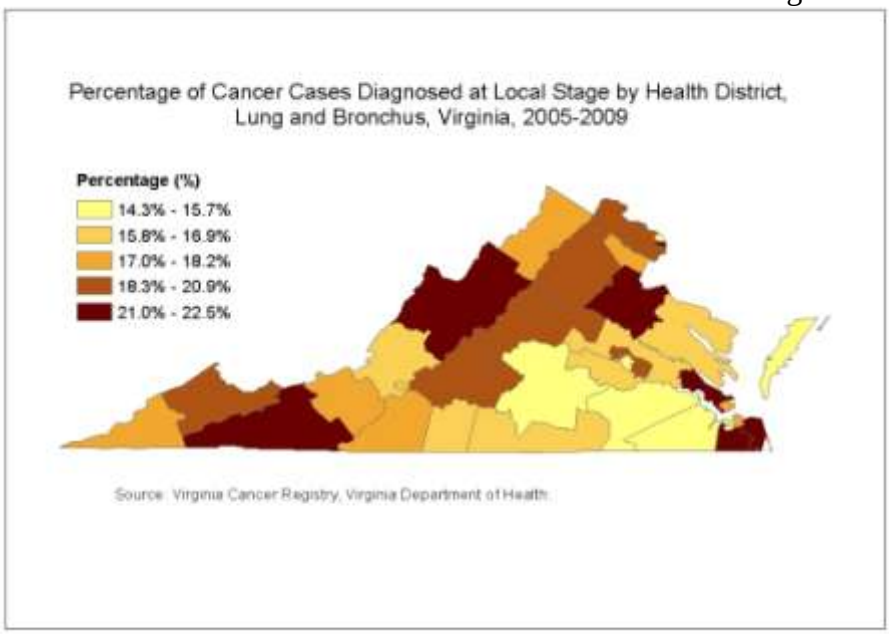
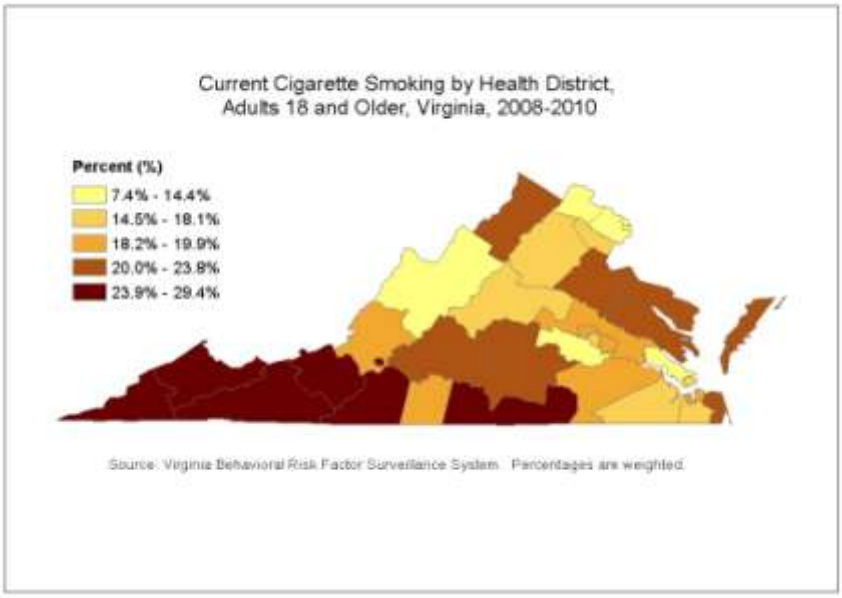


Figure 4



- In Virginia in 2010, there were 3,062 inpatient hospitalizations for lung and bronchus cancer, at a total cost of almost $140 million. The average length of stay was 6.5 days and the average charge per stay was $45,642.[8]

[1]American Cancer Society *Cancer Facts & Figures 2009* (http://www.cancer.org)
[2]Virginia Cancer Registry. Based on combined data from 2005-2009. Rates are age-adjusted to the 2000 U.S. standard population.
[3]Howlader N, Noone AM, Krapcho M, Neyman N, Aminou R, Waldron W, Altekruse SF, Kosary CL, Ruhl J, Tatalovich Z, Cho H, Mariotto A, Eisner MP, Lewis DR, Chen HS, Feuer EJ, Cronin KA (eds). SEER Cancer Statistics Review, 1975-2009 (Vintage 2009 Populations), National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2009_pops09/, based on November 2011 SEER data submission, posted to the SEER web site, April 2012. Based on combined data from 2005-2009. Rates are age-adjusted to the 2000 U.S. standard population.
[4]VDH Division of Health Statistics. Based on combined data from 2006-2010. Rates are age-adjusted to the 2000 U.S. standard population.

[5] Miniño AM, Murphy SL, Xu JQ, Kochanek KD. Deaths: Final data for 2008. National vital statistics reports; vol 59 no 10. Hyattsville, MD: National Center for Health Statistics. 2011. Available from: http://www.cdc.gov/nchs/data/nvsr/nvsr59/nvsr59_10.pdf. National rate is the 2008 age-adjusted rate, which is comparable to the state five-year interval midpoint.

[6] Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data.* Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2010**.** **(**http://apps.nccd.cdc.gov/brfss**)** Accessed 6/21/12.

[7] Virginia Behavioral Risk Factor Surveillance System. Based on 2008-2010 data (pooled). Percentages are population-weighted.

[8] VDH Virginia Health Information Hospital Discharge Patient-Level Dataset.